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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,117	07/20/2001	Takanori Saeki	NEC G226	1670

7590 02/21/2002

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EXAMINER

NGUYEN, LINH M

ART UNIT

PAPER NUMBER

2816

DATE MAILED: 02/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,117

Applicant(s)

SAEKI, TAKANORI

Examiner

Linh M. Nguyen

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-37 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

Election/Restriction

This application contains claims directed to the following patentably distinct species of the claimed invention:

Embodiment I (Figure 1): including claims 1, 28-29, 31, and 33-35, drawn to a circuit and a corresponding control method by adjusting a clock period;

Embodiment II (Figure 3): including claims 2-4, 6, and 30, drawn to a circuit for generating and outputting an output clock signal having a phase prescribed by a control signal from a control circuit;

Embodiment III (Figure 4): including claims 5, 7, 13, and 32, drawn to a circuit and a corresponding method for generating and outputting an output clock signal having a selector to selectively output one of different input multi-phase clocks;

Embodiment IV (Figure 20): including claims 8, 14-18, and 21-27, drawn to a circuit for generating and outputting an output signal having a switch to selectively output two of the first to n^{th} clocks to feed an interpolator;

Embodiment V (Figure 22): including claims 9-10, drawn to a circuit for generating and outputting an output signal having a switch for selecting two sets of the first to n^{th} clocks to feed a plurality of interpolators;

Embodiment VI (Figure 24): including claims 11-12 and 20, drawn to a circuit for generating and outputting an output signal having a synthesis unit fed with outputs of a plurality of interpolators;

Embodiment VII (Figure 23): including claim 19, drawn to a circuit for generating and outputting an output signal having first two interpolators being respectively fed with two sets of clocks of different phases, and a third interpolator to provide output signal;

Embodiment VIII (Figures 16 and 17): including claims 36-37, drawn to a circuit for generating and outputting an output signal having a decoder for decoding an output from an adder to generate a control signal, which is provided to an interpolator at the output of the circuit.

Embodiment I discloses a circuit and a corresponding method for controlling and generating an output signal by adjusting a clock period, which is a conventional method.

Embodiment II discloses a circuit for generating and outputting an output clock signal having a phase, which is prescribed by a control signal from a control circuit.

Embodiment III discloses a circuit and a corresponding method for generating and outputting an output clock signal utilizing a multi-phase clock generating circuit and a control circuit to respectively provide different input multi-phase clocks and a selection signal to a selector for a selective output.

Embodiment IV discloses a circuit for generating and outputting an output clock signal utilizing a switch to selectively output two of the first to n^{th} clocks to feed an interpolator for an output interpolation.

Embodiment V discloses a circuit for generating and outputting an output signal utilizing a switch for selecting two sets of the first to n^{th} clocks to feed two of a plurality of interpolators.

Embodiment VI discloses a circuit for generating and outputting an output signal utilizing a synthesis unit fed with outputs of a plurality of interpolators.

Embodiment VII discloses a circuit for generating and outputting an output signal utilizing first two interpolators fed with two sets of clocks of different phases provided by a frequency divider, and a third interpolator to provide output signal.

Embodiment VIII discloses a circuit for generating and outputting an output signal utilizing a decoder for decoding an output from an adder to generate a control signal, which is provided to an interpolator at the output of the circuit.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 2-4, 6, and 30 are generic. Should Applicant elect the invention Embodiment II, the following election of species is deemed proper and hereby requested.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

A telephone call was made to Norman P. Soloway on 2/19/2002 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR 1.143).

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh M. Nguyen whose telephone number is (703) 305-0414. The examiner can normally be reached on Alternate Mon, Tuesday - Friday from 7:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (703) 308-4876. The fax phone

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numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


Terry D. Cunningham
Primary Examiner

Linh M. Nguyen